

**National EPA-Tribal Science Council (TSC)  
Conference Call Roll Call and Key Discussion  
Points Monday, July 19, 2021  
2:00–3:30 p.m. EDT**

**Roll Call**

***Tribal Caucus***

- ☐ Region 1: William (Billy) Longfellow  
(Passamaquoddy at Sipayik)
- ☐ Region 1 *Alternate*: Trevor White  
(Passamaquoddy Tribe of Indian Township)
- ☒ Region 2: Neil Patterson, Jr. (Tuscarora Nation),  
Chair
- ☒ Region 3: Dana Adkins, Chickahominy Indian  
Tribe
- ☒ Region 4: Katie Tiger (Eastern Band of  
Cherokee Indians)
- ☐ Region 4 *Alternate*: Jerry Cain (Mississippi  
Band of Choctaw Indians)
- ☒ Region 5: Scott Walz (Shakopee Mdewakanton  
Sioux Community)
- ☒ Region 6: Craig Kreman (Quapaw Tribe)
- ☐ Region 6 *Alternate*: Tammy Belone (Pueblo of  
Jemez)
- ☒ Region 7: Page Hingst (Santee Sioux Nation of  
Nebraska)
- ☒ Region 7 *Alternate*: Misha Mazurkewycz (Ponca  
Tribe of Nebraska)
- ☐ Region 8: Joshua Tweeton (Spirit Lake Tribe)
- ☐ Region 8 *Alternate*: Allyson Two Bears  
(Standing Rock Sioux Tribe)
- ☐ Region 9: Shasta Gaughen (Pala Band of  
Mission Indians)
- ☐ Region 9 *Alternate*: Crystal Robinson (Quartz  
Valley Indian Reservation)
- ☐ Region 10: Lee Juan Tyler (Shoshone-Bannock  
Tribes)
- ☐ Region 10 *Alternate*: Kelly Wright (Shoshone-  
Bannock Tribes)
- ☐ Region 10 (Alaska): Vacant

***EPA Caucus***

- ☒ Region 1: Luke Hullinger
- ☒ Region 2: Kai Tang
- ☐ Region 3: Regina Poeske
- ☐ Region 4: Dawn Taylor
- ☒ Region 5: Janette Marsh
- ☒ Region 5 *Alternate*: Mari Nord
- ☒ Region 6: Alexandra (Alexa) Olson
- ☒ Region 7: Eliodora Chamberlain
- ☒ Region 8: Monia Ben-Khaled
- ☒ Region 8: Justin Bleiler
- ☒ Region 9: Rebecca Jamison
- ☒ Region 9 *Alternate*: Danielle Huang
- ☒ Region 10: Lon Kissinger
- ☒ AIEO: Francine St. Denis
- ☒ OAR: Amanda Kaufman
- ☒ OCHP: Ted Coopwood
- ☒ OCSPP: Karen Hamernik
- ☒ OCSPP *Alternate*: Amanda Hauff
- ☒ OLEM: David Charters
- ☒ OMS: Elizabeth (Beth) Jackson
- ☒ ORD: Brenda Rashleigh, Chair
- ☒ ORD: José Zambrana, Liaison
- ☐ OW: Karen Gude

***Support Personnel and Invited Guests***

- ☒ Monica Rodia, TSC Executive Secretary
- ☒ Ben Carson, EPA Region 8
- ☒ Kathie Dionisio, OCSPP
- ☒ Daniel Garver, EPA Region 4
- ☒ Francesca Grifo, EPA Scientific Integrity  
Official
- ☒ Andrea Guajardo, EPA Region 8
- ☒ Maureen Hingeley, EPA ORD
- ☒ Hari Karne, EPA ORD/ORAU Student  
Contractor
- ☒ Kristen LeBaron, Support Contractor (SCG)

**Action Item**

1. TSC members will read the monthly teleconference minutes to ensure that they are aware of current activities, news and action items.
2. TSC members will submit ideas about how the National Tribal Caucus can best work with EPA-Tribal Partnership Groups.

## **Key Discussion Points**

### ***Roll Call and Distribution of Meeting Minutes***

- Monica Rodia took the roll and introduced Eliodora Chamberlain as the new Region 7 Regional Science Liaison and EPA Representative to the TSC. Eliodora is a wetlands and streams biologist with a doctoral degree in wetland ecology. She has worked with states and tribes on a variety of wetland projects.
- Monica explained that the TSC April monthly call minutes and Spring 2021 Virtual Science Meeting minutes had been finalized and distributed.
- TSC members should read the minutes each month to ensure that they are aware of current activities, news and action items.

### ***Caucus Report Outs***

- Neil Patterson reported that the Tribal Caucus had met and would prefer to hold the regular monthly teleconferences through end of 2021 instead of holding a full Fall 2021 Virtual Science Meeting. The goal is to meet in person in the spring of 2022 at the Eastern Band of Cherokee Indians. The Tribal Caucus also discussed the upcoming Tribal Lands and Environment Forum in August, the TSC's Indigenous research framework efforts, and the TSC's presentation at the upcoming Society of Environmental Toxicology and Chemistry North America 42nd Annual Meeting. Neil will be attending the National Tribal Caucus meeting on August 11, which will focus on strengthening collaborations among EPA-Tribal Partnership Groups. The group also discussed Lon Kissinger's retirement; the Tribal Caucus members will miss him.
- Brenda Rashleigh reported that during its recent meeting, the EPA Caucus had agreed to forego the Fall 2021 Virtual Science Meeting in favor of the holding regular monthly teleconferences. Lon presented to the Caucus about using EPA-Tribal Environmental Plans (ETEPs) for collaboration between the Office of Research and Development (ORD) and tribes.

### ***Training: Region 4 Tribal Vignette, Katie Tiger, Eastern Band of Cherokee Indians, and Daniel Garver, EPA Region 4***

- Kate Tiger provided information on Region 4 tribes and their environmental priorities and work.
  - Region 4 includes six tribes: Catawba Indian Nation (South Carolina), Eastern Band of Cherokee Indians (North Carolina), Miccosukee Tribe of Indians of Florida, Mississippi Band of Choctaw Indians, Poarch Band of Creek Indians (Alabama), and Seminole Tribe of Florida.
  - A priority for the Catawba Indian Nation is source tracking for *Escherichia coli* in tribal waters, and an applied research need of the tribe is septic system treatment using UV light. The tribe is propagating culturally significant plants for erosion control and streambank stabilization.
  - Katie showed a video highlighting the Eastern Band of Cherokee Indians and its ancestral lands. The video showcased the tribe's Natural Resources Department staff and their work, including wildlife and aquatic research that informs the tribe about the biological health of its ecosystem, stream restoration and traditional artisan research projects, regulatory and compliance projects that ensure adherence to tribal and federal regulations on tribal lands, the longest continuous ambient air monitoring program in Region 4, how water quality standards are maintained to protect tribal water bodies, the tribe's world-class trout production facility, and how the tribe is meshing traditional ecological knowledge with standard scientific methodologies to validate generations of tribal knowledge.

- Daniel Garver presented about the Regional/State/Tribal Innovation Project (RSTIP), “Collocated Air Sensor Shelters for Tribes and Citizen Science.”
  - Sensor data quality is highly variable, and reported pollutant concentrations often are not comparable to regulatory monitors. To address these issues, collocation of air sensors near regulatory monitors allows researchers to better understand sensor performance and improve data accuracy.
  - The approach of this RSTIP is to build and deploy collocation shelters in various parts of the United States to create the infrastructure to support sensor collocation efforts. The anticipated outcomes are higher quality science and air quality data using lower cost sensors, as well as increased collaboration between communities and tribal, state, and local air quality experts.
  - Researchers are in the process of determining which regions are interested in participating and identifying deployment locations; the next step is to empower shelter use among interested communities.
  - Optimal deployment sites will have ozone and continuous coarse particulate matter monitors, suitable access, and existing relationships with community or citizen science groups that are interested in using the air sensor shelter.
  - Partners will be expected to assemble the shelter after it is delivered, prepare the deployment location, empower use of the shelter, actively participate in project team meetings, and contribute to a document detailing best practices and lessons learned.
  - Several sites in Region 4 have been selected to participate, including the Catawba Indian Nation and Eastern Band of Cherokee Indians. Additional tribal partners include the Cherokee Nation in Region 6 and Little River Band of Ottawa Indians in Region 5.
  - Daniel may be reached at [garver.daniel@epa.gov](mailto:garver.daniel@epa.gov) for more information.

***Scientific Integrity Overview and Upcoming Tribal Engagement, Francesca Grifo, EPA Scientific Integrity Official***

- Francesca Grifo provided an overview of scientific integrity at EPA, which is defined as adherence to professional values and practices. In addition to applying to research, scientific integrity applies to communication and utilization of scientific information. This integrity ensures that EPA’s work deserves the public trust.
- The Scientific Integrity Team writes and oversees policies, performs outreach and training, and hears concerns. The team has written about such topics as authorship and attribution, clearance of scientific products, and how to resolve disagreements between scientists. Each year EPA staff must certify that they are complying with the Scientific Integrity Policy, which was implemented in 2012.
- The Scientific Integrity Committee, which includes senior members from across EPA who serve as Deputy Scientific Integrity Officials, is available for individuals who have concerns.
- The Scientific Integrity Team adjudicates instances in which the policy is not followed. The types of concerns that the team addresses include interference, manipulation of scientific evidence, flawed review of scientific products, plagiarism, and retaliation and intimidation. These issues can be brought forth through the allegations process or an advice process that allows staff to ask questions.
- The Biden Administration and EPA Administrator are committed to scientific integrity as a core value. The *Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the*

*Climate Crisis* directs all federal agencies to review and take action to address any rules that conflict with scientific integrity. An Executive Memorandum established a task force to examine violations of scientific integrity policies; a report and framework will be forthcoming to allow federal agencies to improve in this area.

- EPA's scientific integrity work considers groups that have been historically underrepresented in scientific and technological fields and ensures that scientific integrity supports the equitable delivery of the federal government's programs.
- The Scientific Integrity Team ensures that EPA's work is of high quality and independent, that EPA accurately conveys the science, and that EPA staff perform their work in a manner that follows the policy. How EPA uses the science should not influence how the science is performed.
- The Scientific Integrity Tribal Partner Meeting will be held on July 27.
- David Charters asked who currently serves as EPA's chief scientist. Francesca responded that the current EPA Science Advisor is Jennifer Orme-Zavaleta, who is retiring soon. Wayne Cascio will serve as the acting Science Advisor until EPA selects a permanent replacement.

***TSC Science Seminar: Canoeing for Fish and Data, Lon Kissinger, EPA Region 10***

- Lon presented on Native American fish consumption in Region 10 and environmental regulation, as well as broader Native American environmental issues, information management in relationship to these issues, and using better information management to facilitate research collaboration between EPA and tribes.
- Tribes and Region 10 have partnered to collect Native American fish consumption data for more than 25 years. The first fish consumption survey was a 1994 joint analysis of Nez Perce, Umatilla, Warm Springs, and Yakama tribal fish consumption run by the Columbia River Intertribal Fish Commission (CRITFC). The objective was to characterize Native American fish consumption rates to support the development of water quality standards and other environmental regulations that were protective of Native Americans. The CRITFC survey design has been used in the development of most Region 10 fish consumption surveys, and the region has a rich set of tribal fish consumption information to support regulatory decisions.
- The CRITFC survey also discussed the deep cultural and spiritual importance of fish and other natural resources to Native Americans. As Yakama Tribal Chief George Meninock stated in 1921, "My strength is from the fish, my blood is from the fish, from the roots and berries. The fish and game are the essence of my life." Fish consumption and harvest continue to be of deep cultural and spiritual importance to tribes.
- Lon has observed that EPA risk assessment practices focusing on cancer and noncancer health risks fail to account for the significant cultural, social and psychological effects of fish contaminants on Native Americans. EPA should consider how to address this gap.
- Fish harvest and consumption were of such importance to Native Americans that they were key provisions of treaties between tribes and the U.S. government. Tribes in the Northwest gave away vast amounts of land after being provided with the assurance that their traditional fishing rights would be preserved. Virtually all of Washington state is included in areas subject to treaty-guaranteed fishing rights, which have not always been upheld (e.g., the 1920 conviction of Chief Meninock for violating Washington state fishing regulations on treaty land). These treaty rights are the basis for designating tribes as the population to be protected by Washington state water quality standards and for the use of tribal fish consumption rates to develop those standards.

- Hydroelectric dams and culverts under roadways block and inhibit salmon migration; climate change deprives salmon of the cold water that they need to survive; chemical contamination kills or harms salmon; and the impact of reduced salmon populations and chemical contaminants on Puget Sound's killer whales, whom Native Americans regard as spiritual relatives, is a telling indicator of current conditions.
- Documenting high tribal fish consumption rates is essential to support regulatory actions that will reduce contaminant levels in fish, enable Native Americans to safely consume fish in keeping with their traditional life ways, and honor treaties between tribes—as sovereign nations—and the U.S. government that guarantee access to fisheries resources and the safe consumption of those resources.
- Lon highlighted several Region 10 projects in which fish consumption information has been collected to inform regulatory actions that protect tribal fish consumers. Lon also has worked on water quality standards in Washington, Idaho and Alaska. He showed Alaska data that highlights how much greater Alaska Native and Native American fish consumption rates are compared to the U.S. general population and that current standards are under protective by up to 58-fold.
- Basic sanitation, waste management and burning, clean water, substandard housing, and exposure to Superfund site contaminants also are issues for tribes in Region 10. Climate change, including loss of permafrost, will disproportionately affect Alaska and the Alaska Natives and Native Americans who live there.
- These and other issues have been identified in Region 10 ETEPs, which are prepared to support Indian General Assistance Program (GAP) grants. ETEPs have the potential to serve as a rich source for current information on tribal environmental issues.
- Oracle released the first commercially available relational database in 1979, and EPA instituted ETEPs in 1995; 26 years later, EPA has no national system for managing ETEP information. Without information management, ETEP data have been inadequately utilized. Information contained in ETEPs must be made searchable and retrievable to improve EPA's ability to address tribal environmental concerns. Lon cited emergency response to wildfires as a model for information management.
- To address ETEP information management issues, Lon created a database to make Region 10's ETEP contents searchable and reportable. This database has benefits for addressing tribal needs with limited regional resources.
- The American Indian Environmental Office also has been working to develop a database to handle GAP information management, including ETEPs. Users, who may be tribal representatives or EPA staff, need program tracking, support for direct efforts to address tribal needs, and information to support EPA-tribal research collaborations. Lon is hopeful that a national ETEP information management effort will include input from all potential users to identify data uses and all pertinent information. As the system is built, the usability of forms and reports should be tested by those who need to use the information (i.e., tribes and EPA staff).
- As a scientist, Lon is particularly interested in research collaborations that benefit tribes, and a good information management system leverages the work that tribes already do to describe their environmental concerns, allowing them to state their case without further effort. Currently, ORD reaches out to tribes with research ideas and asks tribes to come to the office. An ETEP information management system, however, would allow ORD to rapidly identify tribal issues appropriate for ORD research collaborations and connect with specific tribes to implement these collaborations.
- Lon introduced a potential TSC pilot project to use the database to develop ORD-tribal research collaborations with the following steps: populate, present, identify and discuss, use, and expand and

develop. The Region 10 database has been populated with information. The TSC can present the idea of using the database to ORD and tribal staff to develop research collaborations, identify and discuss any issues with the approach, and use a prototype to begin identifying collaborations. Finally, the TSC can help expand and develop the prototype approach.

- To return to the topic of fish and provide a chapter ending, Lon cited the 1974 federal court decision that affirmed treaty rights for Northwest tribes and allowed Chief Meninock's 81-year-old great-nephew to vacate the chief's 1920 conviction posthumously.
- Lon provided a demonstration of the database, noting that information from 2020 and 2021 ETEPs have been input.
- Eliodora commented that the database highlights the valuable aspects of ETEPs that many programs are unaware of or do not use to their fullest potential. She asked how often the database is updated. Lon responded that the database still is a prototype system, and the last 2 years of ETEPs have been entered. The database structure streamlines the ETEP commenting process. Establishing a consistent format for ETEPs will increase ease of use.
- Eliodora asked who developed the ETEP database. Lon responded that he has some background in relationship database design, and he developed it and had assistance inputting the 2020 and 2021 ETEP information. He is reaching out to others to "hand off the baton" as he retires. He hopes that the database can be used as a TSC initiative to help ORD-tribal research collaboration. Nikki Bass of OSAPE and Sean Watford of the Integrated Risk Information System (commonly known as IRIS) Program have expressed interest. Region 10 divisions that work with tribes and Region 6 also are interested. Eliodora commented that she is interested as well. Lon would like to bring interested parties together to find a path forward.

#### ***Announcements***

- Monica asked TSC members to send any announcements via email so that the remaining time could be used to wish Lon well in his retirement. Both EPA and Tribal Representatives expressed their appreciation of Lon's work and immense respect for Lon. Lon noted that it has been a pleasure to work with such a diverse group of talented people and to be exposed to diverse Native American issues and cultures. He will carry forever the hospitality and welcome that tribes extended to him throughout his career.

***Next conference call: August 16, 2:00–3:30 p.m. EDT***